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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722.875	11/26/2003	Katsuya Watanabe	10407-72US (A3083MT-US1)	1707
570 7590 01/25/2008 PANITCH SCHWARZE BELISARIO & NADEL LLP ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103			EXAMINER PATEL, GAUTAM	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 01/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/722,875	Applicant(s) WATANABE ET AL.	
	Examiner Gautam R. Patel	Art Unit 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br/>Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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### DETAILED ACTION

1. Claims 1-13 are pending for the examination.

### RCE STATUS

2. The request filed on 12/28/07 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

### Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tada et al., US. Patent 6,370,093 (hereafter Tada) in view of Shibano J.P.O. Publication 05-082067

As to claim 1, Tada discloses the invention as claimed [see Figs. 4-5, 7, 13-14, 18] including a light source, a focusing section, a focus shifting section, a light receiving section, a focus error signal generating section and a control section, comprising:

- a light source [fig. 5, unit 31];
- a focusing section [fig. 7, unit 46a] for focusing light emitted from the light source;
- a focus shifting section [fig. 7, unit 46] for shifting the focal point of the light by changing the position of the focusing section perpendicularly to data storage layer of a given optical disc in accordance with a control signal;
- a light receiving section [fig. 7, unit 43] for receiving, at multiple areas, the light reflected from the data storage layer and generating light quantity signals representing quantities of the light received at the respective areas;
- a focus error signal generating section [fig. 7, unit 46] for generating a focus error signal based on the light quantity signals; and

a control section [fig. 7, units 46 & 47] for generating the control signal in response to the focus error signal such that the focal point of the light is transferred to a focus controllable range in which a focus control is able to be performed on the data storage layer [col. 12, line 46 to col. 13, line 23; col. 16, line 36 to col. 17, line 8].

Tada teaches all of the above elements including several levels of braking signals or deceleration pulse to slow the acceleration down towards disc [see fig. 18C & 18D], thus controlling the braking process and avoiding collision with disc of the objective lens. Thus solving the same problem as Applicant's in multi-layer disc environment.

Tada does not specifically teach that his embodiment has two acceleration pulses to the extent claimed. However Tada does teach basic concept changing the magnitude of the acceleration pulses ["acceleration which accelerates pickup 60 is changed by changing the magnitude of the acceleration pulse"] as applied to a pickup [col. 22, line 58 to col. 23, line 14].

However Shibano clearly teaches the concept dual acceleration pulses [paragraph 002-0003 and figure 3].

All of the components are known in reference Tada and Shibano. The only difference is the combination of the two acceleration pulses into a system which already has plural deceleration pulses [see fig. 18C and 18D]. Compare figures 18 C-D of Tada with applicant's figure 4B [which shows deceleration pulses with two slopes]. It is obvious both figures are showing **identical concept**.

Thus, it would have been obvious to one of ordinary skill in the art to have provide system of Tada with dual acceleration pulse with second pulse being smaller than first as suggested by Tada and clearly taught by Shibano, since operation of a Tada's system can be improved by providing dual acceleration pulses thus making the system more refined for acceleration to be equal to deceleration and thus achieve the predictable result of controlling the lens movement in a more precise fashion and thus avoiding hitting the next layer.

NOTE: see fig. 18D and compare it to applicant's figure 4B.

4. The aforementioned claim 2, recites the following elements, inter alia, disclosed in Tada:

the control section generates the control signal such that the focusing section is brought away from the optical disc and that the focal point stops shifting once entered the focus controllable range [col. 15, lines 36 to col. 16, line 35].

5. The aforementioned claim 3, recites the following elements, inter alia, disclosed in Tada:

the control section generates the control signal such that the focusing section is brought toward the optical disc until the focal point of the light passes the focus controllable range and then brought away from the optical disc once the focal point has passed the focus controllable range [col. 15, lines 36 to col. 16, line 35].

6. The aforementioned claim 4, recites the following elements, inter alia, disclosed in Tada:

the control section generates the control signal such that until the focal point of the light passes the focus controllable range, the focal point being shifted is decelerated at the first acceleration and then at the second acceleration, and that once the focal point has passed the focus controllable range, the focal point stops shifting [col. 15, lines 36 to col. 16, line 35].

7. The aforementioned claim 5, recites the following elements, inter alia, disclosed in Tada:

the control section generates the control signal such that the focal point of the light being shifted is decelerated at the first acceleration and then stops shifting once and that the focal point starts being shifted again in the same direction and then decelerated at the second acceleration [col. 15, lines 36 to col. 16, line 35].

8. The aforementioned claim 6, recites the following elements, inter alia, disclosed in Tada:

the optical disc has a plurality of data storage layers [fig. 2], and wherein the control section generates the control signal such that the focal point of the light being shifted from one of the plurality of data storage layers, for which the focus control is performed, toward the data storage layer [col. 15, lines 36 to col. 16, line 35].

9. The aforementioned claim 7, recites the following elements, inter alia, disclosed in Tada:

the control section generates the control signal, in which the first type of pulses alternate with the second type of pulses so that the focal point of the light is decelerated at the second acceleration [fig. 18; col. 16, line 36 to col. 17, line 8].

10. The aforementioned claim 8, recites the following elements, inter alia, disclosed in Tada:  
the focus shifting section changes the position, acceleration and velocity of the focusing section according to the numbers, magnitudes and durations of the first and second types of pulses applied [fig. 14B 18B, 18C], and wherein the control section generates the control signal by adjusting at least one of the numbers, magnitudes and durations of the first and second types of pulses applied [col. 15, lines 36 to col. 16, line 35].

11. The aforementioned claim 9, recites the following elements, inter alia, disclosed in Tada:  
the control section suspends the focus control on the data storage layer while generating the control signal [col. 15, lines 36 to col. 16, line 35].

12. The aforementioned claim 10, recites the following elements, inter alia, disclosed in Tada:  
the control section starts the focus control after having transferred the focal point to the focus controllable range [col. 15, lines 36 to col. 16, line 35].

13. As to method claim 11, it is drawn to the apparatus of claim 1 and is therefore rejected for the similar reasons set forth in the rejection of claim 1, above;

14. As to claim 12, it is rejected for the similar reasons set forth in the rejection of claim 1, above. As to the added limitations Tada discloses:

a first shifting control section for generating a control signal in response to the focus error signal and supplying the control signal to the focus shifting section such that the focal point of the light being shifted toward the data storage layer is decelerated at a first acceleration; and

a second shifting control section for generating another control signal and supplying the control signal to the focus shifting section such that the focal point of the light is decelerated at a second acceleration and that the absolute value of the second acceleration is smaller than that of the first acceleration [col. 12, line 46 to col. 13, line 23; col. 15, lines 36 to col. 16, line 35].

NOTE: Since unit 46 performs these both functions it inherently has these sections within it.

15. The aforementioned claim 13, recites the following steps, inter alia, disclosed in Tada: generating a first control signal in response to the focus error signal and supplying the first control signal to the focus shifting section such that the focal point of the light being shifted toward the data storage layer is decelerated at a first acceleration; and (b) generating a second control signal and supplying the second control signal to the focus shifting section such that the focal point of the light is decelerated at a second acceleration and that the absolute value of the second acceleration is smaller than that of the first acceleration [col. 12, line 46 to col. 13, line 23; col. 15, lines 36 to col. 16, line 35]. As to the added limitation of computer executable software storing program that can be executed. Storing programs on discs are well known and does not constitute patentable differentiation as such.

16. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new grounds of rejection.

#### **Contact information**

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, can be reached on (571) 272-7023.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

GAUTAM R. PATEL  
PRIMARY PATENT EXAMINER



Gautam R. Patel  
Primary Patent Examiner  
Group Art Unit 2627

January 20, 2008